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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/767,000

01/22/2001

Y. Brian Chen

VIA-002

1489

7590

09/14/2004

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EXAMINER

WAHBA, ANDREW W

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 09/767,000	Applicant(s) CHEN ET AL.	
	Examiner Andrew W Wahba	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>05/21/2001</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12 and 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12 and 15-20 refer to UTOPIA buses or UTOPIA interfaces; it is not clear what additional limitations result from the term UTOPIA. From page 18, line 17, a UTOPIA bus supports four VDSL modems.

Claims 19 and 20 refer to a daughter card; please refer to the area in the specification where the daughter card is described.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Hawley (US Patent 6,480,494).

With regard to claim 1, Hawley discloses a modem bank card 500 (plurality of line cards) for use in a DSLAM 410 (local switch). The modem bank card 500 has a trunk interface 501 (trunk interface) to a POTS switch 120 (column 7, lines 9-13). Trunk connections are typically provided using standardized synchronous transfer mode (STM) such as SONET (optical network) (column 4, lines 8-15). The modem bank card 500 includes multiplexing circuitry 515 (multicasting means) that couples each of the 23 B-Channels to a modem interface 521-543 (plurality of dsl modems) (column 7, lines 23-25).

With regard to claim 2, Hawley discloses control circuitry 550 that may identify dialed destination number associated with each B-channel (selected audio/video channel) in the ISDN trunk (trunk interface) (column 7, lines 24-25 and column 8, lines 16-19).

With regard to claim 3, Hawley discloses, an interface 502 to a backplane (ATM backplane) interconnecting (coupled) components (trunk interface, line cards, controller) of the DSLAM 410 (column 7, lines 12-14).

With regard to claim 4, Hawley discloses a DSLAM 410 connected to an ATM switch module 231 via link 224 as illustrated in Fig 4B. Hawley also discloses a backplane bus 411 (backplane) receiving multiple circuit cards and interconnecting the circuit cards to each other and to an ATM network interface card 412 (at least one ATM bus) (column 6, lines 39-42). Hawley discloses a modem bank card 500 (line card) for use in a DSLAM 410 (local switch). The modem bank card 500 has a trunk interface 501 (trunk interface) to a POTS switch 120 and an interface 502 to a backplane

(backplane) interconnecting components of the DSLAM 410 (column 7, lines 9-13). The ATM switch module 231 and POTS switch 120 correspond to the applicant's plurality of core switch modules. Hawley discloses control circuitry 550 that may identify dialed destination number associated with each B-channel in the ISDN trunk (column 7, lines 24-25 and column 8, lines 16-19). The modem bank card 500 includes multiplexing circuitry 515 that couples each of the 23 B-Channels to a modem interface 521-543 (plurality of dsl modems) (column 7, lines 23-25).

With regard to claims 5 and 7, Hawley discloses a backplane interface 513 coupled to ATM cell segmentation and reassembly (SAR) circuitry 514 (ingress/egress address translation means) (column 7, lines 29-34).

With regard to claim 6, Hawley discloses a backplane bus 411 (backplane) receiving multiple circuit cards and interconnecting the circuit cards to each other and to an ATM network interface card 412 (ATM bus) (column 6, lines 39-42). In the Hawley disclosure, there may be more than one ATM network interface card.

With regard to claim 8, Hawley discloses that the interface 411 (backplane) may be a T1 (Ethernet), T3 (Ethernet) or SONET interface (column 6, lines 29-33). The ATM switch module 231 and POTS switch 120 (both correspond to the applicant's plurality of core switch modules) are also coupled to the interface 411.

With regard to claim 9, Hawley discloses a control 550 (system controller) coupled to a Processor 511 coupled to a memory 512 (non-volatile memory) as illustrated in Fig. 5.

With regard to claims 10 and 11, the Office takes Official notice that field programmable gate arrays are well in the art to which the pending application pertains.

With regard to claim 12, Hawley discloses multiplexing circuitry 515 (UTOPIA interface) coupled to control interface circuit 550 (system controller) and modem interfaces 521-543 (column 7, lines 23-26).

With regard to claims 13 and 14, Hawley discloses that the interface 411 (backplane) may be a T1, T3 or SONET (optical) interface (column 6, lines 29-33). Whether OC-3 or OC-12 is chosen is dependent on the required data rates.

With regard to claims 15 and 16, Hawley discloses multiplexing circuitry 515 (UTOPIA interface) coupled to trunk interface 501 (trunk interface) and backplane interface 502 as illustrated in Fig. 5.

With regard to claims 17 and 18, Hawley discloses multiplexing circuitry 515 (UTOPIA interface) coupled to control interface circuit 550 and modem interfaces 521-543 (plurality of DSL modems) (column 7, lines 23-26).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew W Wahba whose telephone number is (571) 272-3081. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms can be reached on (572) 272-3079. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Wahba



August 31, 2004



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